

PSpice Model

NMOS

FUJI ELECTRIC CO., LTD.

FMH60N280S2HF



Model Information

Model A macro model based on BSIM3 model
Call Name MDC_FMh60N280S2HF_PS
Pin Assign 1:G 2:D 3:S
File List Model Library MDC_FMh60N280S2HF_PS01.lib
 Model Report MDC_FMh60N280S2HF_PS.pdf (this file)

Verified Simulator Version PSpice version 17.2
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Unknown
- Product name FMH60N280S2HF
- Company name FUJI ELECTRIC CO., LTD.
- Characteristics IdVgs[Temp], IdVds[Vgs], Rds(on)Id[Vgs], Rds(on)Temp[Id], VthTemp[Id], IsVsd[Temp], Crss, Ciss, Coss, VgsQg[Vdd], tdon, tdo, tf, tr

Simulation Range

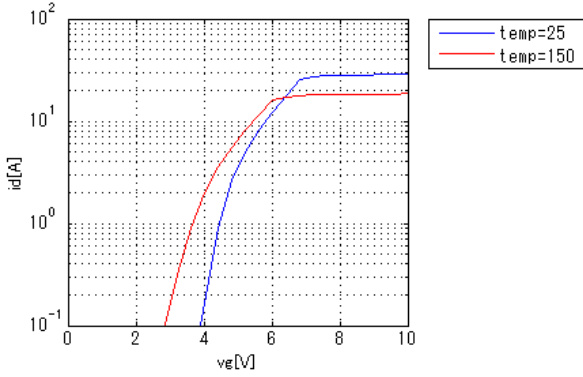
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Range			Unit
	Min.		Max.	
Drain-source voltage (DC)	0	to	600	V
Gate-source voltage (DC)	0	to	30	V
Temperature	-55	to	150	deg C

Simulation results are following.
 Explanatory notes — : simulated

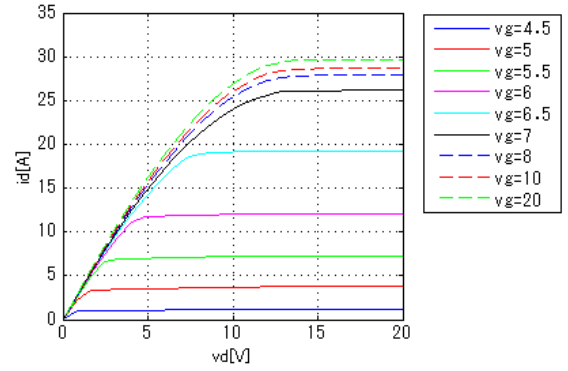
IdVgs[Temp]

Vds = 25V



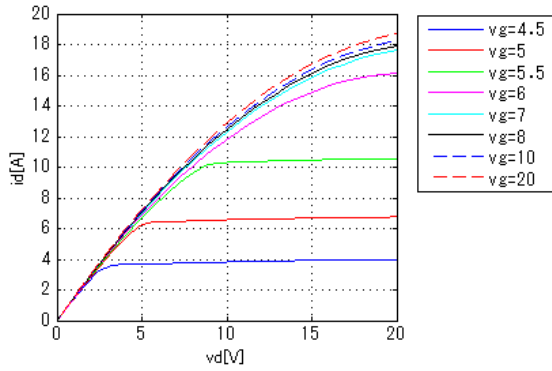
IdVds[Vgs]

Temp. = 25deg C



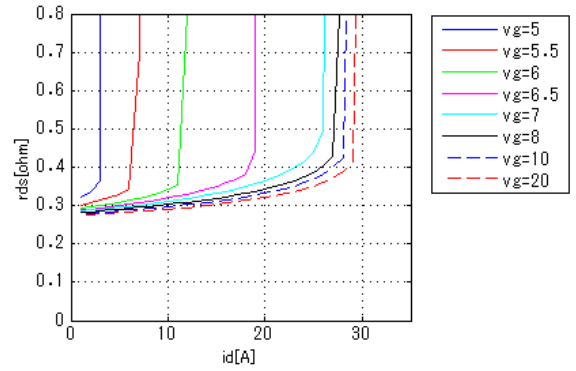
IdVds[Vgs]

Temp. = 150deg C



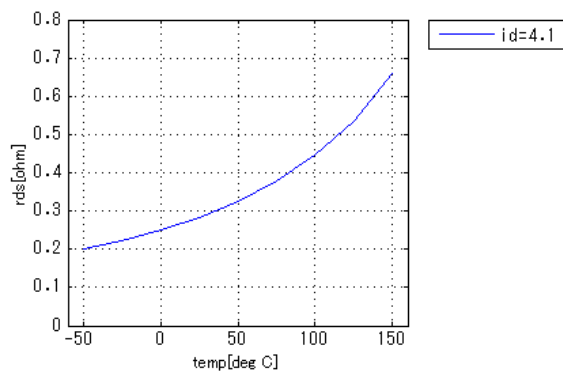
Rds(on)Id[Vgs]

Temp. = 25deg C



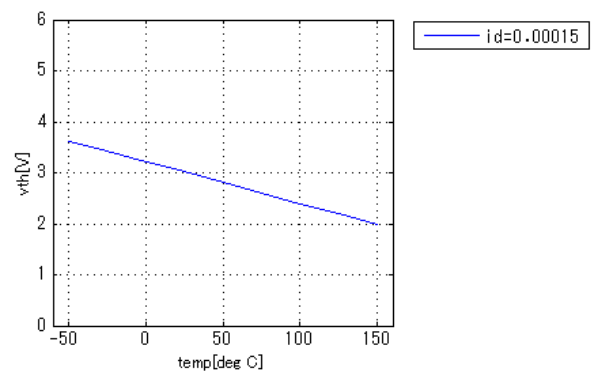
Rds(on)Temp[Id]

Vgs = 10V



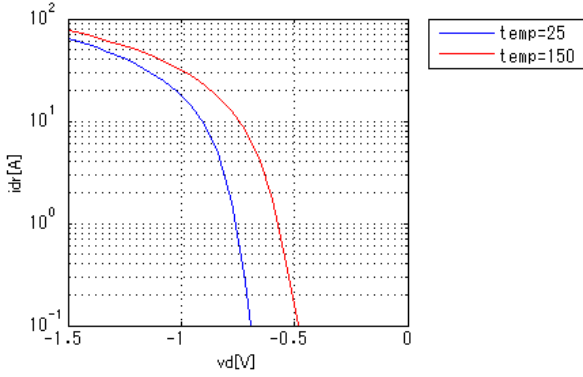
VthTemp[Id]

Vd = Vg



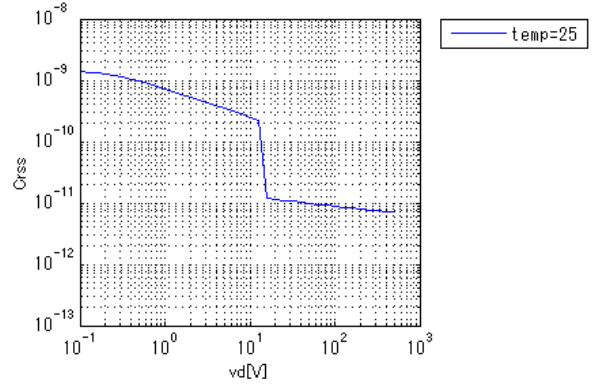
Simulation results are following.
 Explanatory notes — : simulated

IsVsd[Temp]



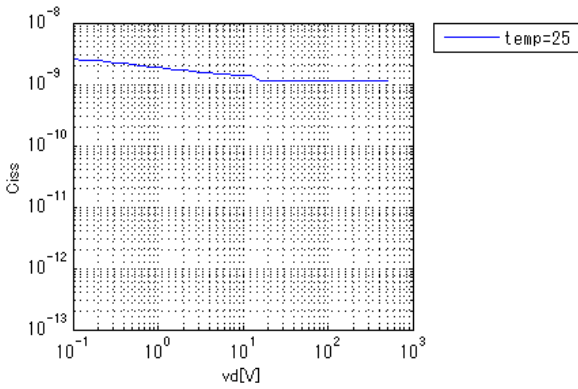
Crss

Freq. = 0.25MHz



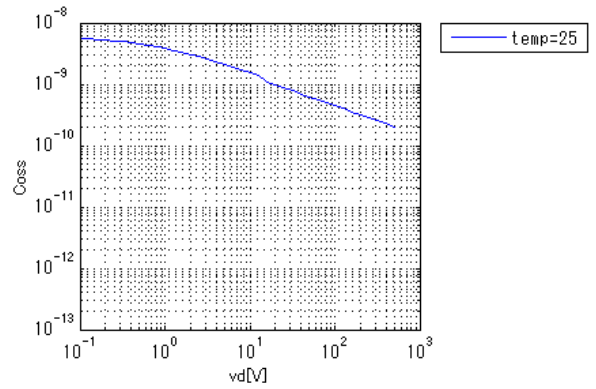
Ciss

Freq. = 0.25MHz



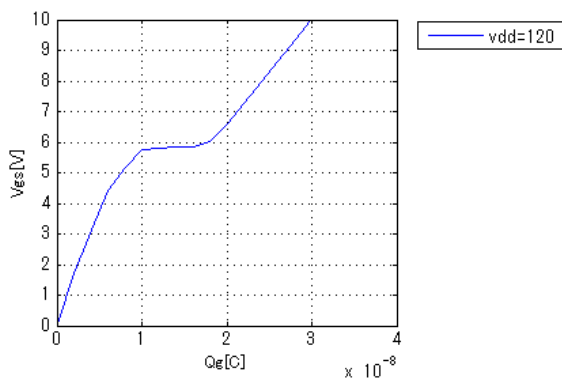
Coss

Freq. = 0.25MHz



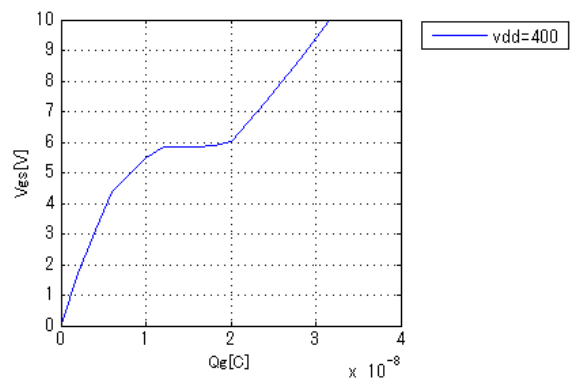
VgsQg[Vdd]

Id = 10.4A



VgsQg[Vdd]

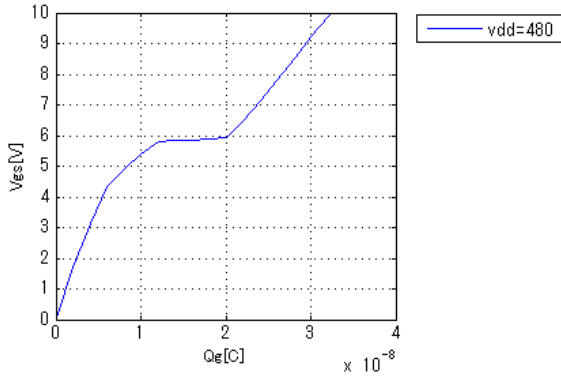
Id = 10.4A



Simulation results are following.
 Explanatory notes — : simulated

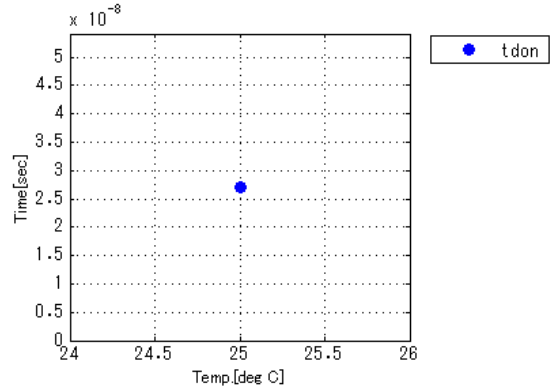
VgsQg[Vdd]

Id = 10.4A



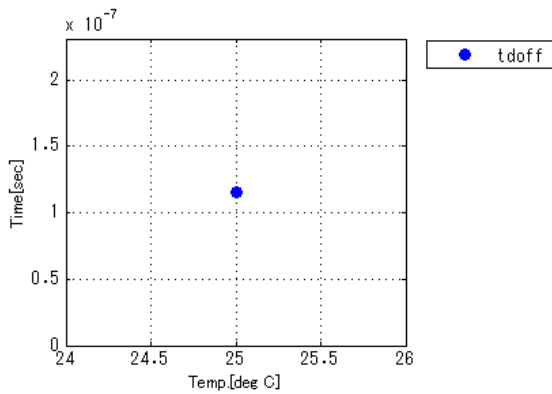
tdon

Vdd = 400V, Id = 5.2A, +Vg = 10V, -Vg = 0V, Rg = 18ohm



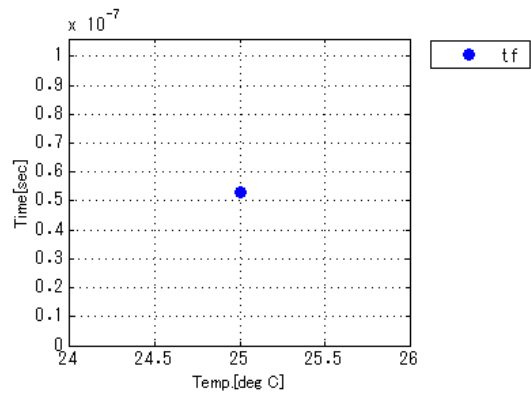
tdoff

Vdd = 400V, Id = 5.2A, +Vg = 10V, -Vg = 0V, Rg = 18ohm



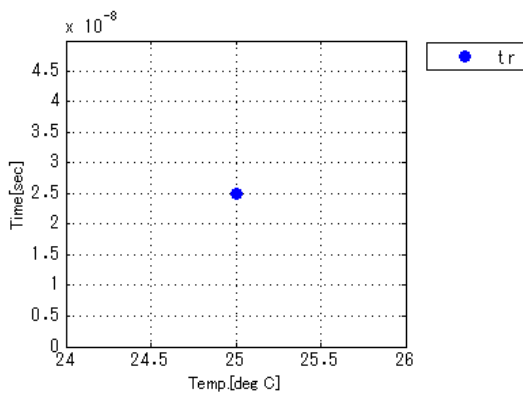
tf

Vdd = 400V, Id = 5.2A, +Vg = 10V, -Vg = 0V, Rg = 18ohm



tr

Vdd = 400V, Id = 5.2A, +Vg = 10V, -Vg = 0V, Rg = 18ohm



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MoDeCH Inc.

Head Office

Location: 5-15 Yokoyama-cho, Hachioji-Shi, Tokyo 192-0081, Japan

Tel:+81-42-656-3360

E-Mail:model-on-support@modech.co.jp

URL:<http://www.modech.com/en/>